

5. Other Issues

5.1 Coordination of Complex Ports

This section discusses the identification and processing of complex ports. Ports can be less or more complex<sup>8</sup>. For example, a single-line account port is relatively easy to process in contrast to a multi-line port with non-consecutive numbers involving a National Account.

<sup>8</sup> This report uses the terms *complex* and *coordination-intensive* to qualify the ports discussed in this report. The term *complex* has previously been used in a similar fashion in the wireline industry and, in this context, refers to the added effort, such as additional data entry, that is required for processing a port of this nature. The term *coordination-intensive* refers to the higher level of coordination required amongst the Service Providers involved

Differentiating between a "regular" port and a "complex" port is important. Consider a complex wireless-wireless porting request of a business with 1,000 non-consecutive phone numbers across 3 NPAC regions. Even if the services providers involved were able to complete their LSR/FOC process within the allotted 30 minutes, it is unlikely that they would be able to complete all pre-porting processes for porting all 1,000 numbers at the due date and time which may be as soon as two hours after receipt of the FOC.

Complex Ports require more time for data entry, increased coordination between the Service Providers and/or additional time for other processes. **As** a result of this added complexity and coordination-intensity between the Service Providers, special rules and processes apply to Complex Ports that do not apply to Regular Ports.

This section of the report explores the distinction between Regular Ports and Complex Ports, describes how to identify a Complex Port, and gives recommendations for processing Complex Ports.

### **5.1.1 Identifying a Complex Port**

Multiple factors are involved when trying to identify whether a port is complex. This section discusses those factors and introduces the parameters that have been found to exhibit a significant correlation with the complexity of a port. Table 4 summarizes these parameters. A detailed explanation of all parameters follows below.

| Parameter  |
|--|
| Number of Lines                                      |
| Multiple Geographic Locations                        |
| Multiple Time Zones                                  |
| Non-Consecutive Numbers                              |
| Time to Perform the Port – After Hours or Busy Times |
| Involvement of Multiple Service Providers            |
| Coordination Request from one Involved Carrier       |

Table 4 Complex Port Parameters

**5.1.1.1 Number of Lines**

For obvious reasons, the number of lines to be ported has notable impact on the complexity and coordination-intensity of a port. One line can be ported easier than ten, provided other influencing factors remain the same.

**5.1.1.2 Multiple Geographic Locations**

Considering a Major Account or a National Account it is conceivable that a customer requests a multi-line port across multiple geographic locations. The fact that multiple offices for each Service Provider are involved may cause them to pursue a project management approach to flash-cut the account. This increases the coordination intensity of such a port.

**5.1.1.3 Multiple Time Zones**

The problem of multiple geographic locations is compounded when these locations span multiple time zones. Business hours in one of the time zones involved may be after-hours in another geographic location.

**5.1.1.4 Non-Consecutive Numbers**

Although the NPAC offers functionality to process consecutive phone numbers in a single command statement. Multi-line ports of non-consecutive numbers may require multiple instances of notification to the NPAC.

**5.1.1.5 Time to Perform the Port – After Hours or Busy Times**

Some ports may have to be performed at night. For example, large multi-line ports for business customers which cannot tolerate a cutover during their business hours may be performed after-hours. Such ports can be considered more complex and more coordination-intensive. Similarly, some ports may have to be performed during particularly busy times during the day, which increases the complexity of the port.

#### **5.1.1.6 Involvement of Multiple Service Providers and Service Types**

Dependent on the port, multiple Service Providers may be involved. A customer may port several directory numbers from multiple Service Providers (SPs) to one Service Provider (SP), from one SP to multiple SPs, or from multiple SPs to multiple SPs. In addition, there are some Service Providers who are voice service consolidators or integrators. These Service Providers offer both wireline and wireless services. In these cases, one Service Provider (who is providing consolidated voice service for wireless and wireline) may need to coordinate a port with either another consolidator of voice services or both wireless and wireline Service Providers.

#### **5.1.1.7 Coordination Request from one Involved Carrier**

Service Providers may make a discretionary decision based on their internal business rules to request a coordinated port. One reason for a Service Provider to take that step may be the type of account. The fact that a customer is a major account can add complexity and coordination-intensity to a porting request. Service Providers may choose to implement supplemental quality processes for major accounts to provide for an additional safeguard for processing ports successfully.

### **5.1.2 Identifying a Complex Port – Aggregation Thresholds**

After the factors were identified that correlated with the complexity of a port, an effort was made to determine how the parameter *values* for a particular port could be summarized into one output on which to make a decision on whether a port is complex. A simple way to aggregate the parameter values or input variables for comparison to a defined threshold was attempted.

This approach proved too complicated. Many of the input variables were not clear-cut and it was difficult to incorporate them into a formula. Therefore, it was decided to use more general *guidelines* as the vehicle to determine whether a port is complex. The next two sections outline these guidelines. Section 5.1.3 discusses guidelines as they pertain to individual parameters and section 5.1.4 introduces scenarios considering multiple parameters at once.

### 5.1.3 Complex Port Parameter Guidelines

This section provides guidelines for each parameter introduced in section 5.1.1. These guidelines should be used and understood as aides to determine the point of transition between a Regular and a Complex Port for the individual parameter considered. Table 5 summarizes these guidelines. Note that there are some parameters which may be considered *knock-out* parameters. When a knock-out parameter assumes a certain value, a port can automatically be considered complex regardless of the other parameters.

| Parameter                                      | Complex Port Guidelines   |
|--|---|
| Number of Lines                                | The port may be considered complex if the number of lines involved becomes onerous depending on whether or not the Service Provider has an automated or manual system of communication with other Service Providers and with the NPAC |
| Multiple Geographic Locations                  | Always a Complex Port   |
| Multiple Time Zones                            | If the port is taking place in two or more time zones, the port can be considered to be complex   |
| Non-Consecutive Numbers                        | The port may be considered to be complex when the ordering process for the non-consecutive number port becomes so time intensive that compliance with the agreed upon timers is no longer possible                                    |
| Time of Day to Perform the Port                | Any port which must be completed at a time other than normal business hours can be considered to be complex due to the coordination of personnel to work off-hours  |
| Involvement of Multiple Service Providers      | Always a Complex Port   |
| Coordination Request from one Involved Carrier | Always a Complex Port   |

**Table 5 Guidelines for Individual parameters**

#### 5.1.4 Processing a Complex Port

This section discusses the differences in processing between Complex and Regular Ports and provides guidelines on how a Service Provider could process a Complex Port.

How are Complex Ports processed differently? For Regular Ports, clearly defined porting flows, generally referred to as the *NANC Inter-Service **Provider** LNP Operations Flows*, have been developed. These flows describe how regular ports are processed, how long steps may take and when coordination between the Service Providers occurs. These flows are still applicable to a Complex Port. However, there may be differences in timing and additional support processes may have to be adopted. Time Intervals established as agreements between Service Providers for Regular Ports may not be appropriate for multi-line ports, especially if those intervals are short (Wireless-Wireless ports). Likewise, coordination processes employed during Regular Ports may not sufficiently address the coordination intensity of Complex Ports. Therefore, Complex Ports may need to be processed differently.

Since Complex Ports vary significantly, agreement was reached that there is no set of rules that can be established for all Complex Ports. However, it was deemed appropriate to provide recommendations on how the processing of a Complex Port may be addressed.

#### 5.1.5 Recommendations for Processing a Complex Port

One recommendation for addressing the processing of a Complex Port is for the Service Provider to analyze the *NANC Inter-Service Provider LNP Operation Flows*<sup>9</sup> in light of the Complex Port that is to be processed. The individual Service Provider may need to supplement the NANC LNP Operation Flows processing in order to accommodate a Complex Port.

The sections below describe several processing characteristics that were determined to be prime candidates to be considered in the SP's analysis. This list of characteristics is not comprehensive and other characteristics may need to be considered for a SP process to address a specific Complex Port

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<sup>9</sup> Please refer to **Appendix C**.

### 5.1.5.1 Time Intervals

The time intervals may need to be extended to accommodate Complex Ports<sup>10</sup>

### 5.1.5.2 Coordination Processes

Coordination processes may be more elaborate for Complex Ports. hence. Service Providers may choose to employ a project management approach. For example. this could involve the preparation of a spreadsheet listing all Telephone Numbers involved in the port. The spreadsheet could contain data such as TN. NPA-NXX. Port-Out Wire Center, Port-In Wire Center, Due Date. Due Time. etc. The spreadsheet can then be used as a status check as each TN is ported.

### 5.1.6 Additional Complex Port Questions

There are a number of additional questions that need to be answered by individual Service Providers before a generally applicable solution can be recommended. Moreover, depending on the Service Provider, there may be no reasonable generally applicable solution. For example, a particular Service Provider may have a severe limitation on entering data into its Service Order Entry Systems. For a general solution to be applicable, it needs to comply with the least common denominator of Service Providers' capabilities that. in certain cases. may not be reasonable in respect to the performance capabilities of other Service Providers. The following list exhibits the additional questions that may need to be discussed internal to a Service Provider's organization.

- For Wireless to Wireless ports with compatible handset technology, what are the issues in regards to customers bringing in their old phones versus purchasing a phone with the new Service Provider?
- What are issues related to porting authorization?
- What is the Service Provider's limitation on entering large amounts of data into their existing Service Order Entry Systems?
- What is the Service Provider's limitation on entering phone number ranges into their existing Service Order Entry Systems?
- What are issues concerning inter-Service Provider communication (including conflicts during LSR/FOC) determined by inter-Service Provider agreements?
- Do ancillary services that are attached to the current line or account impact the

<sup>10</sup> Please note the NPAC timers t1 and t2 will not be affected by the extension of Time Intervals. Time intervals are agreed upon by the Service Providers participating in the porting activity and are independent of the NPAC timers. which ensure timely submission of subscription versions and cancellation of subscription versions. where necessary

- complexity?
- Are there different vehicles (faxes, EDI, email) used to transport information between Service Providers involved in the port which may have an impact on the processing of the port?
  - Are there 3<sup>rd</sup> party vendors involved in the port that may contribute to the complexity of the port, e.g. PBX vendor, pre-paid service bureau?

## 5.2 Treatment of Type 1 Numbers

Type 1 interconnection is a trunk interconnection between an MSC and a wireline end office switch which supports traffic between the MSC and the PSTN. Type 1 numbers are not necessarily assigned in 10,000 number blocks, i.e. 100s or 1000s blocks. Type 1 numbers reside in the wireline end office.

The NPA NXX associated with the Type 1 interconnection is assigned to the ILEC providing the interconnection arrangement and not the wireless carrier using the Type 1 interconnection to route traffic to their MSC. As a consequence, when the wireless Type 1 customer elects to port, both the ILEC and the existing wireless carrier are involved.

Agreement was reached on the treatment of Type 1 NPA-NXXs. Wireless carriers may request that the wireline switch is number portability capable and the NPA-NXX code is open for porting. Wireless carriers may port the assigned and reserved Type 1 numbers to their MSC. The wireless carrier then may address their old Type 1 interconnection contract with the ILEC.

## 5.3 911 Service

The FCC Report and Order 96-264 (also commonly known as FCC Docket 94-102) mandates the delivery of a wireless 9-1-1 caller's callback and location information to the Public Safety Answering Point (PSAP). Because implementation of number portability affects the routing of a call from emergency services to the callback number, wireless Service Providers need to be aware of the interaction of 911 service and number porting. 911 calls from wireless phones trigger a service process which both routes the call and delivers caller identification data to the appropriate PSAP. For LNP Phase 1 Wireless implementations, both the calling party's number and a pseudo-ANI (p-ANI or p-Routing number, or Emergency Services Routing Key) are delivered to the PSAP, and the p-ANI is used to query the Automatic Location Identification (ALI) database for information about the caller. The ALI database is used by PSAPs to access the location information for 911 callers.

In a wireline to wireless port, a scenario could occur in which the call back from emergency services gets routed incorrectly. If the wireless phone is activated for service prior to the completed port activation by the NPAC, and the customer calls 911, the correct MDN for callback will still be delivered to the PSAP. However, until the port activation is completed and the NPAC has downloaded the new routing information to



the network. a callback attempt to this MDN would be routed to the old wireline switch instead of the wireless switch.

Another 911 issue exists during a "mixed service" period between NPAC activation by the wireless carrier and disconnect by the wireline carrier. If a call to 911 is placed from the wireline phone and subsequently, the emergency service attendant attempts to return the call, the attendant's call would be routed to the wireless phone instead of to the wireline phone from which the emergency situation was reported. That is, the PSAP attendant cannot reestablish the connection to the wireline phone during the "mixed service" interval. This will occur for virtually all calls in this situation.

## 5.4 First Port

Service Providers need to consider several factors when conducting a first port. For instance:

- Is the current Service Provider switch LNP capable
- Is the NPA NXX open for porting
- Is this the first port in the NPA NXX ( first ports require 5 days to complete)

## 5.5 Time Frames for Equipping Switches to be LNP Capable

Time frames for equipping switches to be LNP capable are defined in the FCC's *First Memorandum Opinion and Order (CC Docket No. 95-116, FCC 99-19 dated February 8, 1999)*. In Appendix A, the time frames are specified as follows: "The time frames for deployment of additional wireless switches are as follows: (1) Equipped Remote Switches within 30 days; (2) Hardware Capable Switches within 60 days; (3) Capable Switches Requiring Hardware within 180 days; and (4) Non-Capable Switches within 180 days. As in the wireline context, carriers may submit requests for deployment of number portability in areas outside the 100 largest MSAs at any time. CMRS providers must provide number portability in those smaller areas within six months after receiving a request or within six months after November 24, 2002, whichever is later."

## 6. Open Issues

### 6.1 Rate Center Issue

Differences exist between the local serving areas of wireless and wireline carriers. These differences impact Service Provider Portability with respect to porting from a wireless *Service Provider to a wireline Service Provider*. These differences, resulting in an impact called "disparity", exist because the geographic scope of Service Provider number portability was limited to rate centers. Consensus was not reached at the WWISCLNPA WG on a solution for this issue. The issue was therefore escalated to the NANC on February 18, 1998. NANC did not reach consensus for a resolution on the issue.

Consequently, the rate center issue was referred to the FCC. No resolution of this issue has occurred.

## 6.2 Support of National Roaming

Nation Wide Roaming may not be supported as it is currently, unless MIN/MDN separation is implemented by all MIN based wireless systems (not just those in the top 100 MSAs) prior to the start of wireless number portability. Clarification was provided by the FCC for this issue in the Memorandum and Order CC95-116 dated February 8, 1999, paragraph 41

All wireless carriers even those outside major markets must configure their networks to support number portability regardless of whether there is consumer demand for LNP among customers in their home markets. This configuration requires the MIN/MDN to be separated to support nationwide roaming for the following :

- Automatic callback
- Delivery of calling number and calling name:
- Delivery of callback number on E911 calls:
- Generation of the correct calling party number used for toll billing by the interexchange carriers:
- Generation of the correct calling party number used for billing records:
- Generation of the correct calling party number used to bill for various operator services (e.g. DACC).

## 6.3 Mechanization of Wireless to Wireless Inter-Carrier Communication

The Wireless Number Portability Subcommittee reached consensus that standards would be required for the inter-carrier communications process for wireless to wireless porting if the thirty minute interval was to be met.

In January 1998, the CTIA sponsored workshop on Inter-Carrier Communications recommended adopting a phased approach to wireless number portability inter-carrier communications. The first phase was to begin June 30, 1999 using a modified version of the wireline LSR forms and process. The second phase eliminated the wireline LSR method from the wireless number portability processes for inter-carrier communications. The workshop recommended "the second phase begin upon completion of the enhancement to either the NPAC or an alternative system which could enable wireless carriers to exchange information about porting subscribers through a *third party* communication, rather than using direct *carrier to carrier* communications." Further, the workshop representatives recommended launching wireless number portability with

<sup>11</sup> CTIA *Number Portability Working Group, Inter-Service provider communication Subcommittee, Operations flows and*

phase two if at all possible."<sup>11</sup>

On February 8, 1999 the FCC granted the wireless industry an extension regarding their number portability obligations until November 24, 2002.<sup>12</sup> The additional time granted to wireless carriers could make possible the launch of wireless number portability with an inter-carrier communications process that adequately supports the wireless business model. This process may allow the wireless industry to meet the agreed to 30 minute interval for inter-carrier communications.

The Wireless Number Portability Subcommittee requested the CTIA Numbering Advisory Group (NAG) to assemble a wireless technical team of subject matter experts to produce a technical report that would include recommended standard solutions for wireless inter-carrier communications. The Subcommittee requested the NAG to 1.) Hold a public forum with the wireless community to accept additional contributions to the technical report and gain industry agreement for the recommendations; 2.) Oversee the legal review of the document and process; and 3.) Issue an addendum to the Wireless Number Portability Report for use by the industry.

The Wireless Number Portability Subcommittee will monitor the wireless to wireless inter-carrier communications work at this industry forum to ensure that: 1.) Any recommended changes to the NPAC/SMS be referred to the LNPAWG for development; 2.) Any recommended changes to the LSR/FOC process be referred to OBF; and 3.) The wireless number portability milestones for implementation are met.

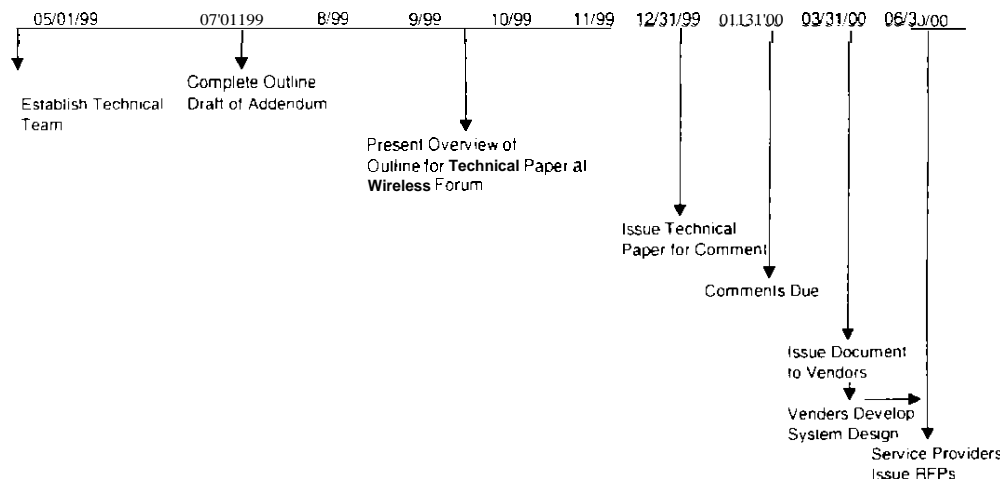
The following is the timeline that was developed by the Wireless Number Portability Subcommittee for the NAG technical team that is consistent with the Wireless Number Portability Implementation milestones.

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Local Service Request Recommendations, Section 6.1, page 6.

<sup>12</sup> Memorandum Opinion and Order, Docket 98-229, adopted February 8, 1999, Cellular Telecommunications Industry Association's Petition for Forbearance From Commercial Mobile Radio Service Number Portability Obligations.

## INTER-CARRIER REPORT TIMELINE



### 6.3 Reseller Interaction with NPAC/SMS

Given the wide range of service provisioning and customer acquisition methods used within the wireless industry, the issue of number porting techniques and access to the NPAC SMS by resellers has been raised. Wireless models involving the port of a number have no attendant facilities transferred or provisioning required by the underlying facilities provider. Handset programming is either done by the reseller or by the facilities provider at the retail point of sale, or with automated "over the air" programming coordinated by the reseller or the Service Provider. In both instances, the reseller or Service Provider can directly provision the customer into the facilities based network, with no involvement by the facilities based network provider. In some cases, the facilities based provider may not have or be permitted to have any information on the customers provisioned on its network.

Because some reseller/ Service Providers have the entire relationship with the customer including network provisioning, some wireless facilities based providers may want the entire porting process handled by the reseller /Service Provider.

There are a number of open issues remaining to be examined and discussed by the LNPA WG relative to this issue.

### 6.5 Directory Listing Issue

Directory listing issues may occur when porting between Service Providers. For example, at the present time wireless customers do not generally list their mobile directory numbers. The new Service Provider must designate the disposition of the listing, if the telephone number to be ported is currently listed in the directory. Processes

are needed to support the disposition of the listing when the telephone number is ported from one Service Provider to another.

There is a process in place currently used by the wireline industry that the Wireless Number Portability Subcommittee needs to research and integrate with the assistance of the LNPAWG subcommittee.

## **6.6 Billing Issue**

During the mixed service period, as defined in Section 3.6 calls made through inter-exchange carriers (IXC) may not be billed properly. Calls may be billed twice, rated wrong or not billed at all depending on whether the calls are originated from the old or new SP network and the billing arrangement the IXC has with the SPs.

For a TN that is ported between wireless carriers or ported between wireline and wireless carriers, ANI (MDN) alone is not adequate to identify call origination as either wireless or wireline and it is not adequate to identify call origination with either the old or new SP.

Before NPAC activation, the IXC will bill according to its Inter Carrier agreement with the old SP. After NPAC activation, the IXC will bill according to its Inter Carrier agreement with the new SP.

### **Proposed Solution:**

It is recommended that the OBF Billing Committee and NIIF provide resolution for this issue.

## **6.7 911 Issue**

During the mixed service period, as defined in the Wireline Wireless Integration Second Report (section 3.6), an unacceptable public safety situation may occur for the time period when both donor and recipient phones can make 911 calls. In the event of a disconnected 911 call before NPAC activation, the PSAP can only call back a donor wireline phone and cannot call back a recipient mobile phone that is able to originate calls. After NPAC activation, the PSAP can only call back a recipient mobile phone and cannot call back a donor wireline phone that is able to originate calls.

### **Proposed Solution:**

In order to avoid unacceptable public safety liability, the LNPAWC will need to develop a work plan to resolve this issue in order to meet the Wireless Number Portability Industry Implementation timeline.

## 7. Acronyms/Definitions

|          |  |
|----------|--|
| AMPS     | Advanced Mobile Phone System   |
| ANSI     | American National Standards Institute  |
| CDMA     | Code Division Multiple Access  |
| CLASS®   | Custom Local Area Signaling Services   |
| CMRS     | Covered Commercial Mobile Radio Service  |
| CNAM     | Calling Name Delivery  |
| CTIA     | Cellular Telecommunications Industry Association   |
| DACC     | Directory Assistance Call Completion   |
| DID      | Direct Inward Dial   |
| E911     | Enhanced 911   |
| EDI      | Electronic Data Interchange  |
| FCC      | Federal Communications Commission  |
| FOC      | Firm Order Confirmation  |
| FRS      | Functional Requirements Specifications   |
| GSM      | Global Standard for Mobile communication   |
| GTA      | Global Title Address   |
| HLR      | Home Location Register   |
| IS       | Interoperable Interface Specification  |
| IMSI     | International Mobile Station Identifier (E.212)  |
| ISVM/MWI | Intersystem Voicemail/Message Waiting Indication   |
| IS-41    | Interim Standard 41  |
| IXC      | Interexchange Carrier  |
| LNPA-T&O | Local Number Portability Administration- Technical Operational Requirements Task Force, Former Subcommittee of the LNPA WG |
| LNPA-WG  | Local Number Portability Administration-work in <sup>A</sup> Group   |
| LEC      | Local Exchange Carrier   |
| LIDB     | Line Information Data Base   |
| LNP      | Local Number Portability   |

|      |  |
|------|--|
| LSMS | Local Service management System  |
| LSR  | Local Service Request  |
| LTi  | Low Tech Interface   |
| MDN  | Mobile Directory Number  |
| MIN  | Mobile Identification Number   |
| MSA  | Metropolitan Statistical Area  |
| MSC  | Mobile Switching Center  |
| MSID | Mobile Station Identifier  |
|      | MSISDN                      Mobile Station Integrated Service Digital Network N (E.164)  |
| NANC | North American Numbering Council   |
| NP   | Number Portability   |
| NPA  | Numbering Plan Area  |
| NPAC | Number Portability Administration Center   |
|      | NPAC/SMS                      Number Portability Administration Center/Service Management System   |
|      | NPDB                          Number Portability Database (contains associations between numbers and LRNs)   |
|      | NXX                              4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> digits of the IO-digit dialable number. N cannot be 0.                                    |
| OBF  | Ordering and Billing Forum   |
| PCS  | Personal Communications Service  |
| PSAP | Public Safety Answering Point  |
| PSTN | Public Switched Telephone Network  |
|      | Rate Center                      A uniquely defined geographical location within an exchange for which mileage measurements are determined for the application of call rating. |
| SCP  | Service Control Point  |
| SME  | Subject Matter Expert  |
| SMR  | Specialized Mobile Radio   |
| SMS  | Service Management System  |
| SMS  | Short Message Service  |
| SOA  | Service Order Administration   |

|       |  |
|-------|--|
| SP    | Service Provider                               |
| SS7   | Signaling System Seven                         |
| TCIF  | Telecommunications Industry Forum              |
| TDMA  | Time Division Multiple Access                  |
| TN    | Telephone Number                               |
| WNP   | Wireless Number Portability                    |
| WSP   | Wireless Service Provider                      |
| WWISC | Wireless Wireline Integration Sub Committee    |
| WWITF | (LNP) Wireline/Wireless Integration Task Force |



## **Appendix A**

### **LNPA Working Group Member List**

The LNPA WG is open to all parties and is representative of all segments of the telecommunications industry. The following is a current list of members:

Aerial Communications  
AG Communication Systems  
Airtouch Cellular  
Alltel  
American Management Systems  
Ameritech  
Ameritech Cellular  
APCC, Inc.  
Architel Systems Corp  
AT&T  
AT&T Wireless Service.  
Bell Atlantic  
Bell Atlantic Mobile  
  
BellSouth  
BellSouth Cellular  
Cincinnati Bell Telephone  
cox  
CTIA  
DSC  
DSET  
Evolving Systems. Inc.  
Florida Public Service Commission  
GTE  
Illuminet  
Interstate FiberNet  
Level 3 Communications  
Lockheed Martin  
Lucent Technologies  
MCI/WorldCom  
MCI System House  
Microcell

Nextel  
Nextlink Communications  
Nortel  
Omnipoint Communication Services  
Ohio PUC  
OPASTCO  
Operations Development Consonium  
Pacific Bell  
PCIA  
Peak Software Solutions  
SBC  
SBC/TRI  
SBC Wireless  
Sprint  
Sprint PCS  
Stentor  
Tekelec  
Telcom Strategies Group  
Telconda Technologies  
Telecom Software Enterprises (TSE)  
Telecom Technologies  
Telecommunications Resellers Association  
Telus  
Time Warner  
US West  
USTA  
Voicestream Wireless  
WinStar Communications

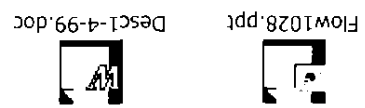
## **Appendix B**

### **LNPA Working Group Meetings (as of January, 1999)**

LNPA Working Group meetings (and associated integration subcommittee meetings) are scheduled generally on a monthly basis in various cities throughout the United States and Canada.

| <b>Week Of</b>     | <b>City &amp; State</b> |
|--------------------|-------------------------|
| January 12, 1999   | Atlanta. GA             |
| February 9, 1999   | San Ramon. CA           |
| March 9, 1999      | Denver. CO              |
| April 13, 1999     | Washington. DC          |
| May 11, 1999       | Baltimore. MD           |
| June 8, 1999       | San Ramon. CA           |
| July 13, 1999      | Ottawa, Ontario         |
| August 10, 1999    | Portland. OR            |
| September 14, 1999 | Chicago. IL             |
| October 12, 1999   | Kansas City. KS         |
| November 9, 1999   | San Antonio. TX         |
| December 7, 1999   | Phoenix, AZ             |

## Appendix C NANC Inter-Service Provider LNP Operations Flows and Narrative Descriptions



## ATTACHMENT C

6607 Willow Lane  
Mission Hills, KS 66208

November 29, 2000

Dorothy Attwood  
Chief, Common Carrier Bureau  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

RE: *3<sup>rd</sup> Report on Wireless/Wireline Integration from the Local Number Portability Administration (LNPA) Working Group.*

Ms. Attwood:

Enclosed from the North American Numbering Council (NANC) is the 3<sup>rd</sup> report on Wireless/Wireline Integration authored by the LNPA Working Group acting as technical consultant to the NANC. This report was submitted to the NANC on September 30, 1999 and was adopted by the Council at its November 28, 2000 meeting.

**As** the title implies, this is the 3<sup>rd</sup> of a series of reports from the LNPA regarding the Wireless/Wireline Integration issue. The first report, dated May 8, 1998 dealt primarily with the Rate Center disparity issue. **As** stipulated in the original guidelines for Local Number Portability, the porting of telephone numbers would be limited to a specific rate center. With the integration of the Wireless industry into the portability process, these guidelines become ineffective. This issue was referred to the FCC in February, 1998. It is a crucial issue that must be resolved prior to emergence of the Wireless industry into the portability process. This issue was also referred to in the 2<sup>nd</sup> report and is still a major concern in the 3<sup>rd</sup> report.

The 2<sup>nd</sup> report on Wireless/Wireline Integration, dated June 30, 1999 dealt primarily with the porting interval. The guidelines for Wireline carriers allow for a 24 hour LSWFOC exchange and three days (5 days if code opening is required) for the disconnect of the customer from the old service provider and the NPAC activation of the number for the new service provider. The Wireless Industry expressed concern that this interval did not fit with their current business model of providing immediate (or close to immediate) service.

Due to the newness of the process, the Wireline Providers did not feel it was feasible to reduce the porting interval. In order to accommodate the Wireless business model, three

alternatives were contrived that are discussed in detail in the 2<sup>nd</sup> report. These alternatives allow for NPAC activation by the Wireless provider prior to disconnect by the Wireline provider. This process results in a situation the LNPA referred to as "mixed service". The customer would have service on a wireless set as well as a wireline phone for a period of time. Although the "mixed service" condition was agreed as a viable alternative between Wireless and Wireline providers, concerns were expressed regarding issues that might arise during the "mixed service" condition. The primary concern was for E911 service. This issue is discussed in detail in the 2<sup>nd</sup> report.

It was the request of the NANC and the FCC that the LNPA continue to investigate the E911 concerns and present its findings in a 3<sup>rd</sup> report. In an effort to comply with the request, the LNPA consulted with the National Emergency Number Association (NENA). Although NENA was not comfortable with any situation that might impede E911 service, they agreed that the probability that this situation might occur was very low and did not see this as a "show stopper" to the proposed process. In the 3<sup>rd</sup> report, the LNPA was able to consolidate the three alternatives resulting in "mixed service" into two. Two minority opinions are also included in the 3<sup>rd</sup> report as appendices C and D.

Upon approval of the 3<sup>rd</sup> report by the NANC, the LNPA requested that the NANC forward the report to the FCC as a recommended guideline for Wireless/Wireline Integration. The LNPA also requested that the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> reports along with the Wireless Number Portability Report from the Wireless Number Portability Subcommittee, adopted by the NANC in its September 19, 2000 meeting be put forth to the Industry for comment.

Sincerely,

John R. Hoffman  
NANC Chair

cc: Cheryl Callahan, Designated Federal Officer (DFO)  
NANC Members

## North American Numbering Council

### *Local Number Portability Administration Working Group*

### *3<sup>rd</sup> Report on Wireless Wireline Integration*

*September 30, 2000*

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